

We claim:

1. A system for improving the signal-to-noise ratio of a differential signal comprising:
 - first and second signal lines connected to corresponding first and second inputs of a differential amplifier; and
 - a means for adjusting an impedance connected to at least one of the signal lines.
2. The system for improving the signal-to-noise ratio of claim 1, further comprising a controller for selectively adjusting the means for adjusting the impedance of claim 1 in order to achieve and improve signal-to-noise ratio.
3. The system for improving the signal-to-noise ratio of claim 1, further comprising a plurality of impedance elements selectively connected to at least one of the signal lines by a corresponding plurality of switch members.
4. The system for improving the signal-to-noise ratio of claim 3, wherein at least some of the impedance elements are capacitors.
5. The system for improving the signal-to-noise ratio of claim 1, further comprising a means for adjusting an impedance connected to each of said first and second signal lines.

6. A system for improving the signal-to-noise ratio of a differential signal comprising:
first and second signal lines connected to corresponding first and second inputs of a differential amplifier; and
a plurality of impedance members selectively connected to at least one of the signal lines with a plurality of switches.

7. The system for improving the signal-to-noise ratio of claim 6, further comprising a controller for selectively connecting the impedance members with the switches in order to achieve an improved signal-to noise ratio.

8. The system for improving the signal-to-noise ratio of claim 6, wherein at least some of the impedance elements are capacitors.

9. The system for improving the signal-to-noise ratio of claim 6, further comprising a plurality of impedance members selectively connected to each of the signal lines with a plurality of switches.

10. A method for improving the signal-to-noise ratio of a differential signal comprising the steps of:

providing first and second signal lines connected to corresponding first and second inputs of a differential amplifier; and

selectively changing an impedance connected to at least one of the signal lines.

11. The method for improving the signal-to-noise ratio of claim 10, further comprising a step of selectively connecting one or more of a plurality of impedance elements to at least one of the signal lines with switch members.

12. The method for improving the signal-to-noise ratio of claim 10, wherein at least some of the impedance elements are capacitors.